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I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003906484 for a patent by NATHAN ARTHUR TRANTER and TERRENCE PAUL BROWN as filed on 25 November 2003.

WITNESS my hand this  
Fourteenth day of December 2004

A handwritten signature in black ink, appearing to be 'L. Mynott'.

LEANNE MYNOTT  
MANAGER EXAMINATION SUPPORT  
AND SALES



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**AUSTRALIA**  
***PATENTS ACT 1990***

**PROVISIONAL SPECIFICATION**

**PROJECTOR DIP**

**The invention is described in the following statement.**

## PROJECTOR DIP

The invention relates to a new product for the discrete installation of data/video projection units.

In many installations of data/video projectors there is an issue of protection against theft or damage to the projection unit. It is often unfeasible to remove these units from their locations when not in use. In the past the solution to this problem has been the use of some type of motorized projection lift which retracts the projection unit into the ceiling followed by a panel which seals off the hole in the ceiling. Some problems associated with these units are that often when the projection unit is in use the opening in the ceiling is not sealed off, giving unsightly views and loss to the effectiveness of heating or cooling systems. These types of projector lifts are also quite cumbersome requiring a large ceiling cavity and a difficult installation process. Another benefit of this type of discrete installation is the aesthetics, in many applications it is not desirable to view the projection unit when not in use.

These problems are overcome with the present invention, which retracts the projection unit into the ceiling cavity via means of a lowering housing which lowers out from the ceiling with a hinged motion, the hinge (pivot) point of this housing is located above ceiling level and is spaced well away from edge of the housing.

In one form of the invention the housing may have metal sides and timber as the top and bottom panel, these pieces of timber would be large enough to allow a projection unit to fit between them and would be of the same size. When open the top timber panel would close off the opening into the ceiling and when closed the bottom panel would be level with ceiling. The panels would attach to each other via two metal side panels shaped in such a way that they allow free motion through the ceiling from the open to the closed position, the metal panels would also be of such a shape that the top panel is parallel with the ceiling in the open position and the bottom panel is parallel with the ceiling when in the closed position. The housing would be attached to the pivot point by two metal bars which attach to the top of the top panel and extend out from the housing. This housing would then have a frame of appropriate size surrounding it with the back of this frame containing a brass bush on two parallel sides, these bushes would have pins which extend through the ends of the extended bars on the housing and form the pivot point.

In another form of this invention brackets may be attached to the back of the frame and the top of the housing to allow for the attachment of a form of motor which may be used to open and close the invention.

The panels in this unit may be made of craft wood or any other appropriate material that can be attached to the pivot points and allows for the ability to attach a projection unit to

it. The frame may be fabricated from metal or be constructed from molded plastic or any other appropriate material.

To assist with understanding of this invention, reference will now be made to accompanying diagrams which illustrate one possible example of this invention.

### **THE DIAGRAMS**

FIG. 1 is an illustration of one possible example of the invention

In figure 1 there are two main parts to the invention, a housing and a frame. The housing consists of a top panel A. and a bottom panel B. these two panels are attached to side panels C. of the housing. The top panel also has attached to it the extended bars D. which extend back to the pivot points. The pivot points consist of a pin E. and a bush F., the bush is secured within the frame and the pin locates through the bush and extends into the ends of the housings extended bars.

FIG 2. Is an illustration of the motion of the invention in this example.

Fig 2.A is an illustration of the invention in the open position.

Fig 2.B is an illustration of the invention in the closed position.

The projection dip as described in this invention may be either manually lowered or lowered by means of an additional motor. The applications of this projector dip are not limited to only discrete ceiling mounting of projection units but may also apply to applications where a projection unit is to be discretely mounted in a wall, a floor, a piece of furniture or any other suitable location. Similarly the use of this invention is not entirely limited to the discrete installation of projection units but may also apply to discrete installation or mounting of many other products such as monitors, keyboards, telephones or similar.

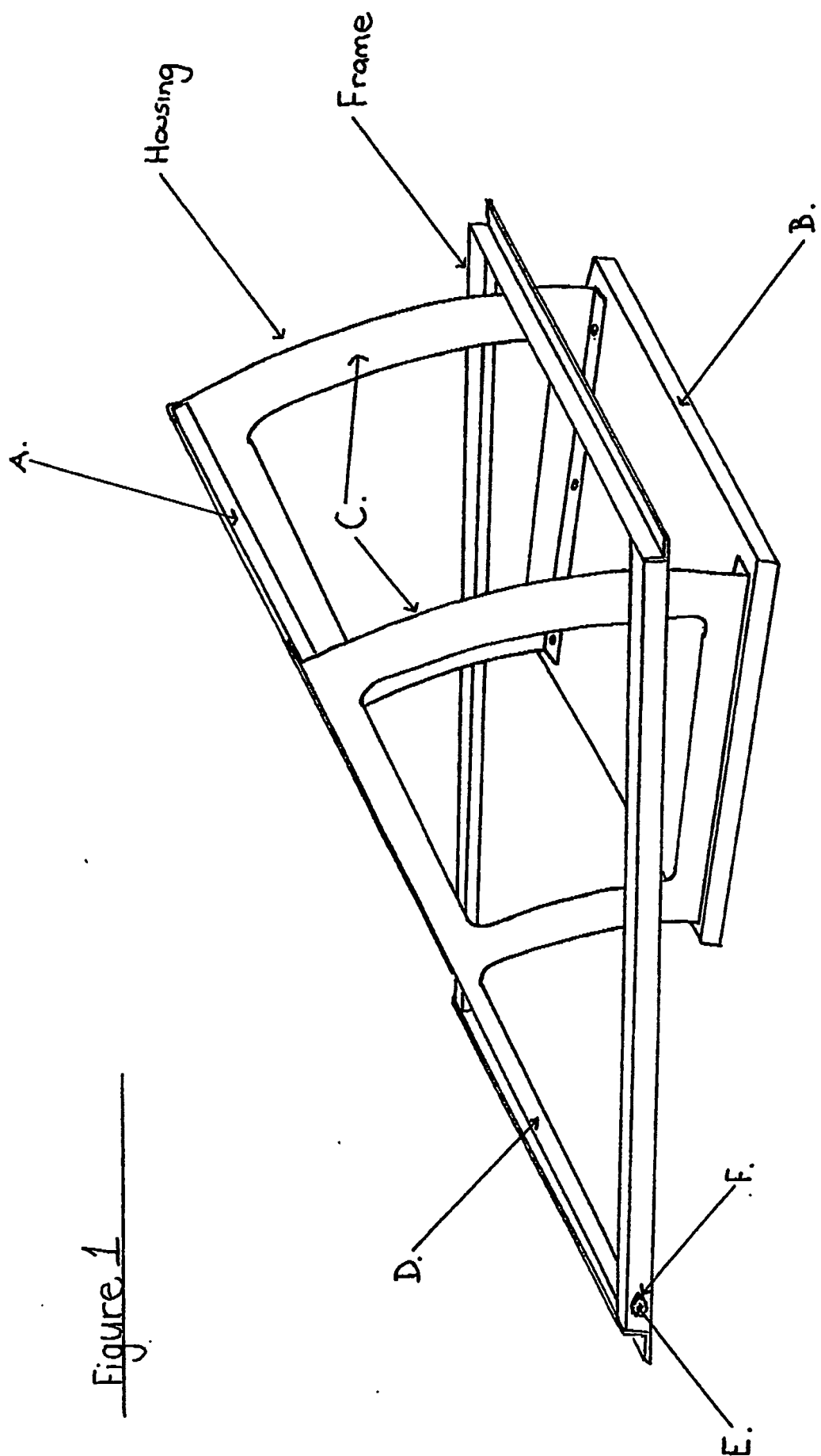
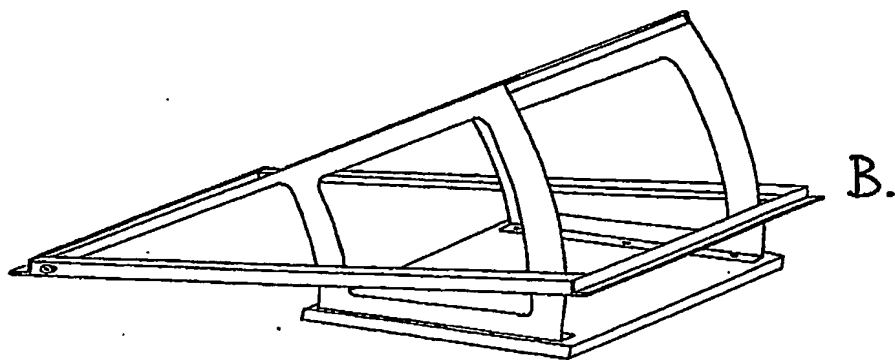
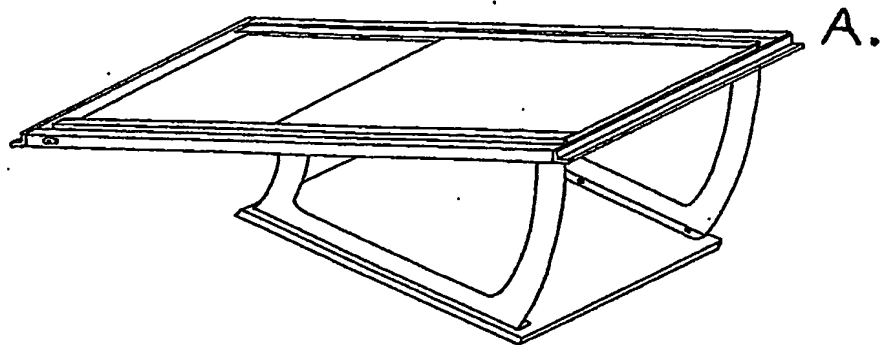


Figure 1

Figure 2



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